WHAT IS CLAIMED IS:

1. Apparatus for breath monitoring by sensing respiratory air flow from the nostrils of the nose and/or the mouth of the face of a patient comprising an acoustical device positioned on the face in the vicinity of the nose and/or mouth of the patient and having at least one acoustic duct receiving respiratory air flow from the patient, a sensor exposed to the acoustic duct for sensing turbulence and/or pressure changes and/or sound in the respiratory air flow in the acoustic duct and providing an electrical output signal and means for digitally processing the electrical output signal to provide a real-time signal indicative of breathing of the patient.

2. Apparatus as in Claim 1 further including means for measuring oxygen flow and wherein the sensor produces a signal which is proportional to oxygen flow to minimize the effect of the oxygen flow in the respiratory air flow into the patient.

3. Apparatus as in Claim 1 wherein said sensor is a vibratory sensor.

4. Apparatus as in Claim 1 wherein said sensor is a microphone.

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5. Apparatus as in Claim 1 further comprising an additional sensor in the form of a microphone in the vicinity of the nose and/or mouth of the patient and out of communication with the acoustic duct for measuring ambient sounds including respiratory sounds in the vicinity of the nose and/or mouth and providing an electrical output signal, means for combining the output signals from the first named and additional sensors for reducing ambient noise signals from the signal of the first-named sensor and means utilizing the combined electrical output signals for recognizing disordered breathing patterns.

6. Apparatus as in Claim 5 further including means coupled to the combined output signals for providing a measure of respiratory sound intensity.

7. Apparatus as in Claim 6 wherein said measured respiratory sound intensity is in the form of dB_A.

8. Apparatus as in Claim 7 wherein said means for providing respiratory sound intensity includes means for displaying the sound intensity at predetermined time intervals.

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9. Apparatus as in Claim 1 wherein said device is comprised of a body having an elongate portion having a length and width so as adapted to fit underneath the nose of the patient and on the upper lip of the patient, wherein said acoustical duct is disposed in the body and wherein said sensor is in communication with said acoustical duct, said body having a plurality of ports therein exposed to respiratory flow and in communication with the acoustical duct.

10. Apparatus as in Claim 9 wherein at least certain of said ports are adapted to underlie the nostrils of the nose.

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11. Apparatus as in Claim 9 wherein said body of said device includes a portion extending over the mouth of the patient and having an acoustical duct therein in communication with the acoustical duct in the elongate portion, said body also having a port therein in communication with the acoustical duct in the portion overlying the mouth of the patient and facing towards the mouth of the patient to monitor air flow into and from the mouth of the patient.

12. Apparatus as in Claim 11 wherein said portion of the body adapted to overlie ~~overlying~~ the mouth of the patient is in the form of a depending portion depending from the elongate portion.

13. Apparatus as in Claim 1 wherein said means for securing the device to the patient includes loops extending around the ears of the patient and secured to the body.

14. Apparatus as in Claim 11 wherein said body includes at least one port underlying each of the nostrils of the nose and at least one port opening in the vicinity of the mouth of the patient.

15. A method for measuring respiratory air flow from the nostrils of the nose and/or the mouth of a patient comprising providing at least one acoustical duct having at least one port opening in the vicinity of the nose and/or the mouth of the patient for receiving respiratory air flow of the patient, sensing turbulence and/or vibration and/or sound in the air flow in the acoustic duct and providing an electrical signal and digitally processing the electrical signal to provide a real-time indication of respiratory flow.

16. A method as in Claim 15 further including the step of sensing respiratory sound in the vicinity of the face of the patient and providing an additional electrical output signal and combining the first named and additional electrical output signals to provide a combined signal which is substantially free of ambient noise and artifacts and utilizing the combined signal to provide a real-time signal indicative of respiratory air flow.

17. A method as in Claim 16 further including the step of converting the combined signal into a waveform and classifying the waveform to ascertain disordered breathing events.

18. A method as in Claim 16 further including the step of utilizing the combined signal to provide an indication of respiratory sound intensity.

19. A method as in Claim 18 wherein the respiratory sound intensity is provided in dB_A.

20. A method as in Claim 15 further including the step of ascertaining the frequency of breathing.

21. A method as in Claim 17 further including the step of displaying the waveform for visual observation.